

NDCEE

National Defense Center for Environmental Excellence



DoD Executive Agent

Office of the
Assistant Secretary
of the Army
(Installations and
Environment)

Addressing Buildings and Numbering Interior Areas

~

Tobyhanna Army Depot 2007

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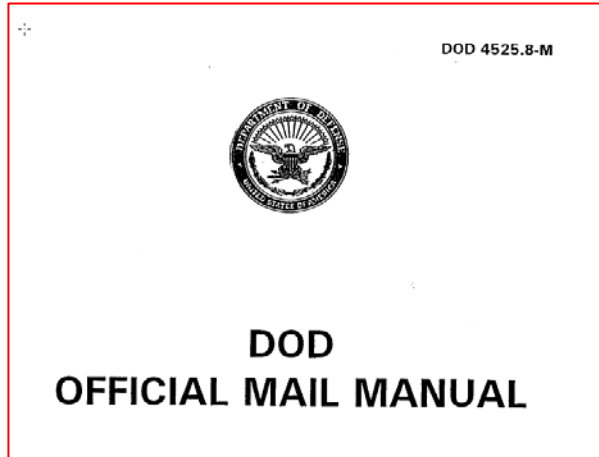
TOBYHANNA ARMY DEPOT

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Technology Transfer—Supporting DoD Readiness, Sustainability, and Transformation

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Why Re-Address?



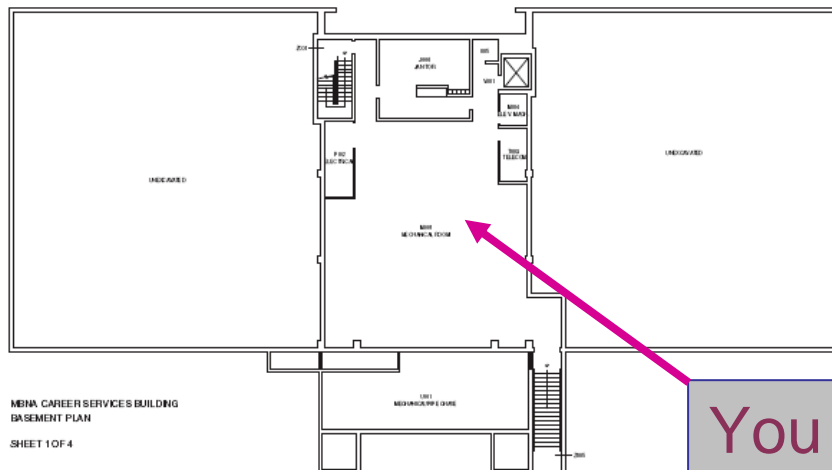
- **DOD 4525-8 states** that installations shall not have one address and then building numbers, such as “44 Hap Arnold Blvd, Bldg 678,” but rather 44 7th Street, Tobyhanna, PA, 18466
- Follow USPS Street address standards.



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Why Number Rooms?

- The old numbers have worn off
- People are tired of saying: “Up where the old drafting area used to be, over behind the ATM”



- People like to be found quickly when they have heart attacks.

You Are Here



What are some of the challenges on an old installation?

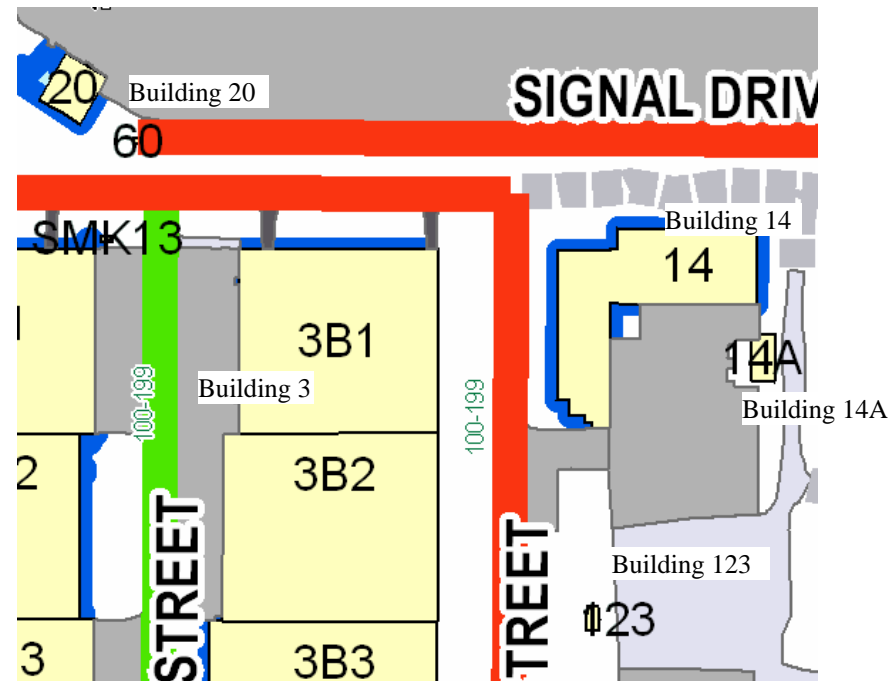
- Old drawings
- No drawings
- Inaccurate drawings
- Conflicting drawings
- Standard Operating Procedures do not address current requirements
- Lack of cooperation between divisions.



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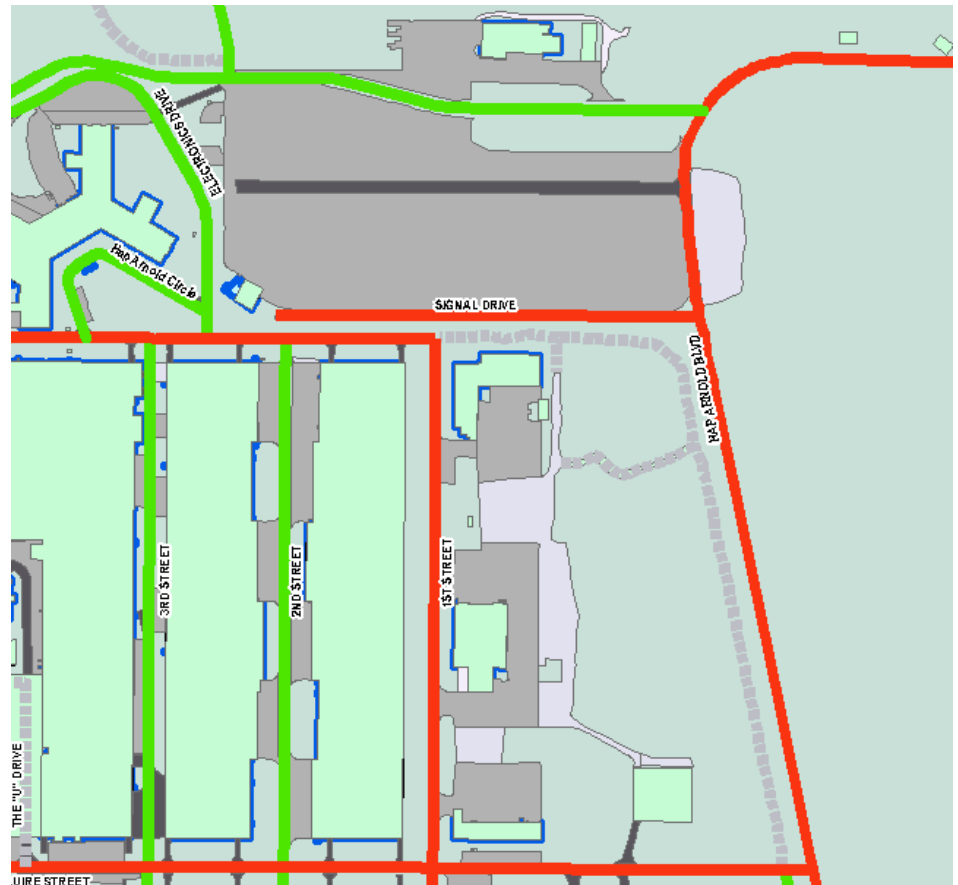
Addressing vs. Building Numbers

- Building numbers were assigned randomly
- Only the master planner knew for sure
- Moving around the depot became difficult and incomprehensible (numbers made no sense).



Some of the Challenges with Addressing

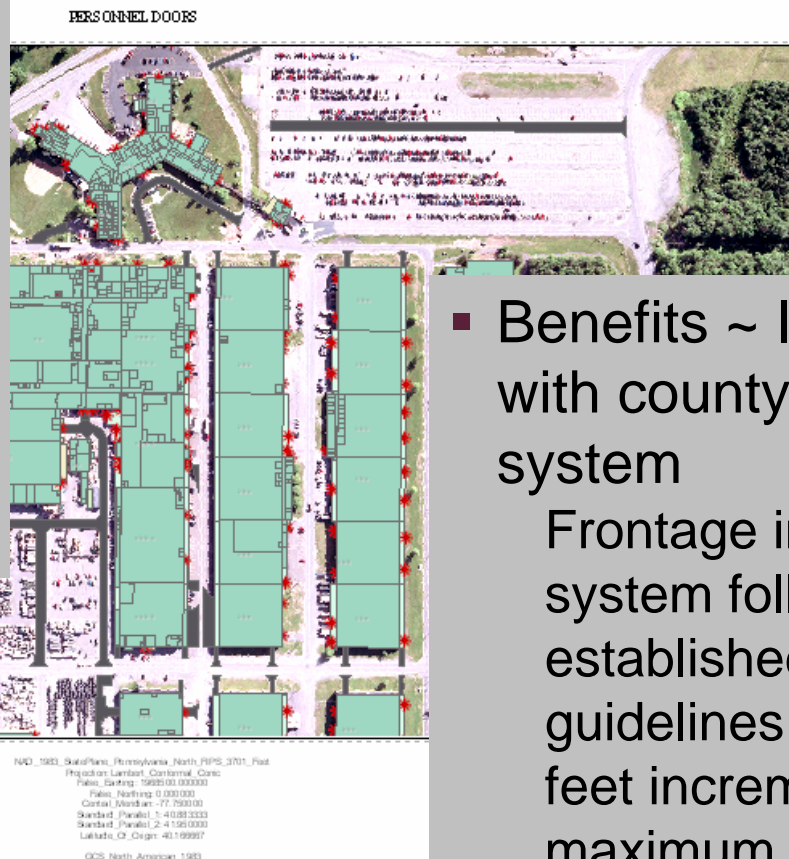
- Road naming
- Roads cannot go in two directions
- Road names cannot be duplicated within a township
- Streets must be named according to names and functions associated with the Depot.



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New Address System by Street Number

- Challenges ~
 - Many entrances per building
 - Depot would like to keep same address for Headquarters building

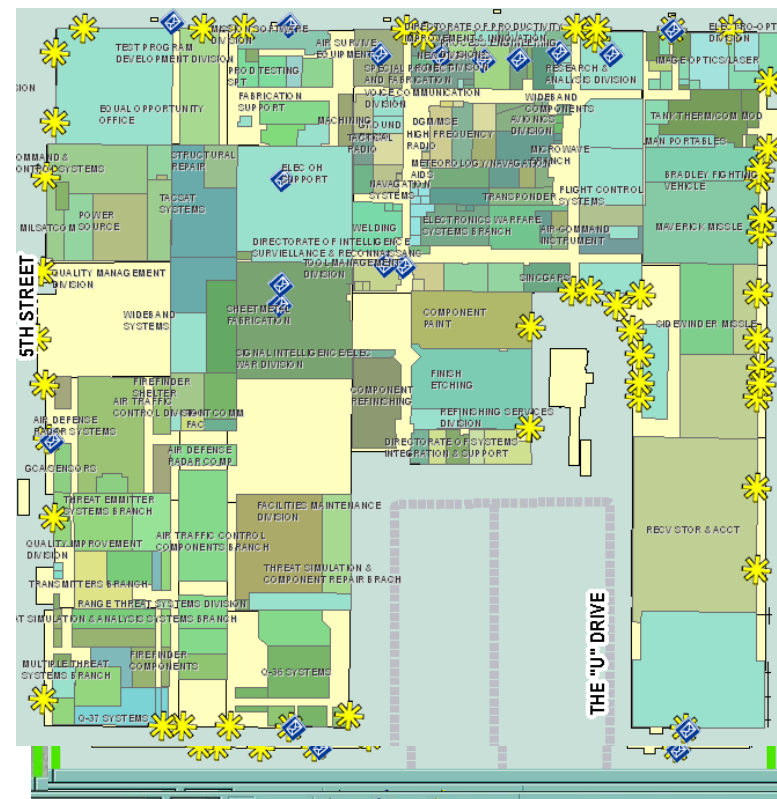


- Benefits ~ In sync with county 911 system
Frontage interval system follows established guidelines (i.e., 52.8 feet increment yields maximum 200 address numbers per mile).



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- Many entrances per building
- Many mail stops per building
- Many cost centers per building.



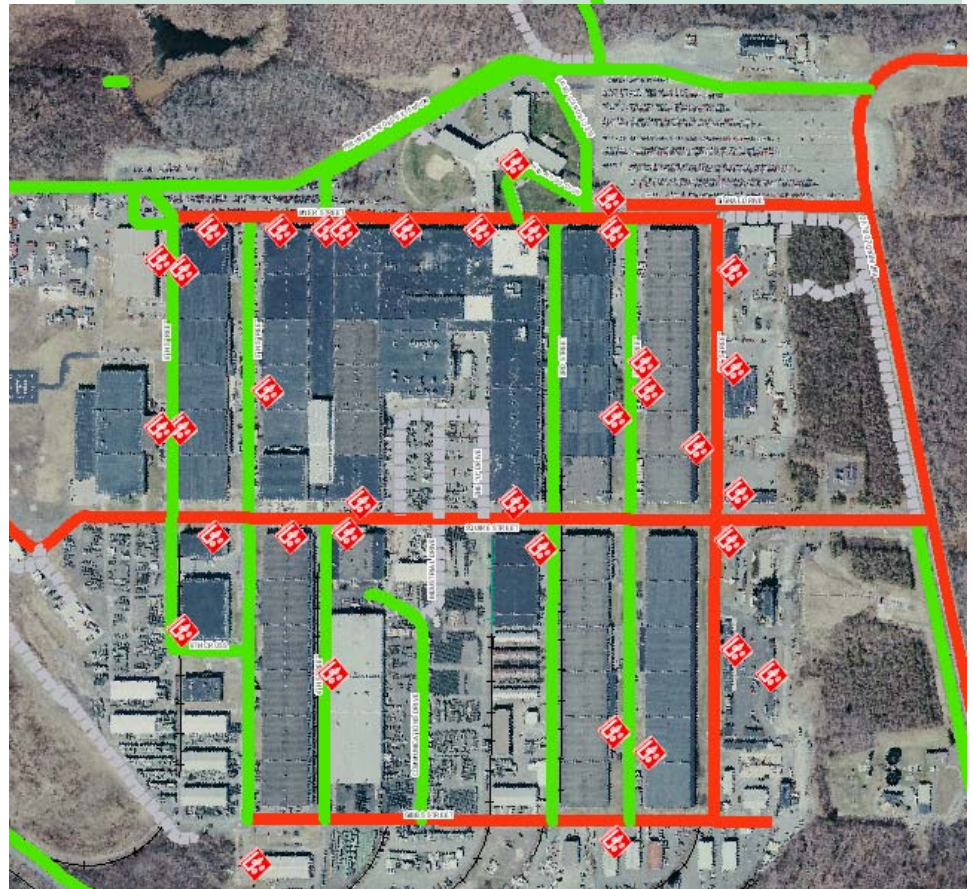
Entrances per Building

- Became a large issue with cost centers, tenants, and directorates
- Usually addressing involves one address per building
- Mail stop locations became primary.



Entrances per Building

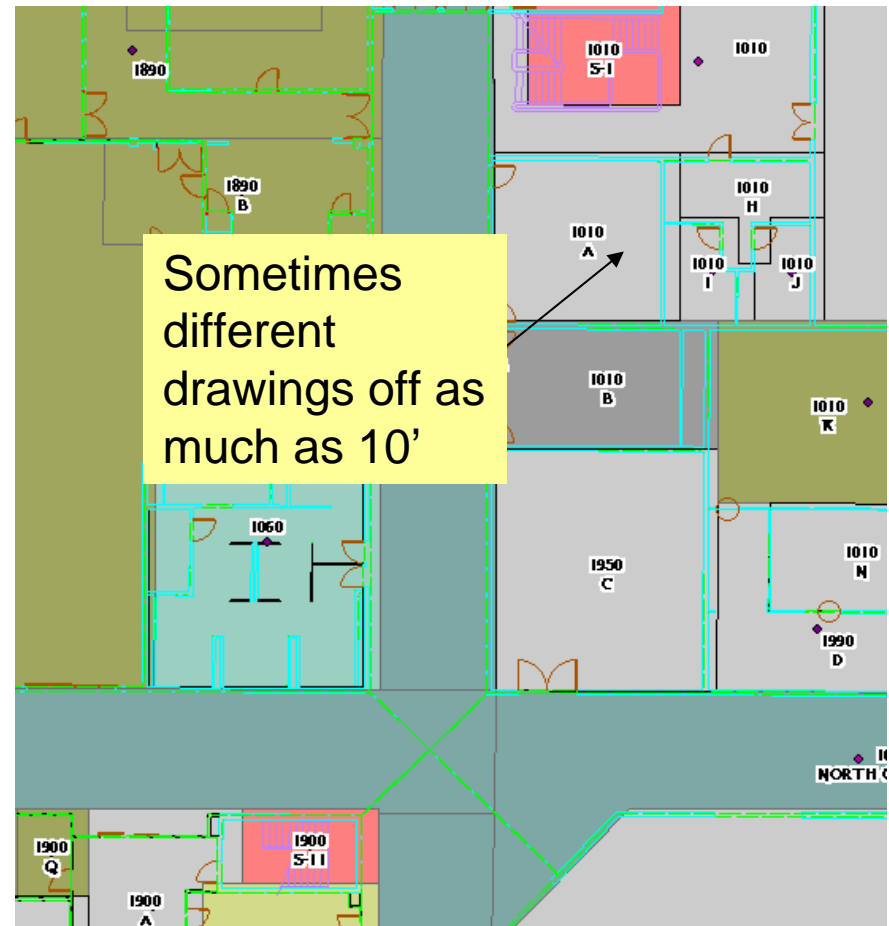
- Find all entrances to building
- Locate all mail stops
- Locate primary personnel door
- Place address label at primary entrance.



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Interior Addressing Information and Attributes

- How accurate are your areas?
- Is it easier to bring in AutoCAD® interiors and georeference them, or to create new polygon features?
- Technical challenges with copying data from one source (inaccurate polys/accurate data) to another (accurate CAD or polys/null data).



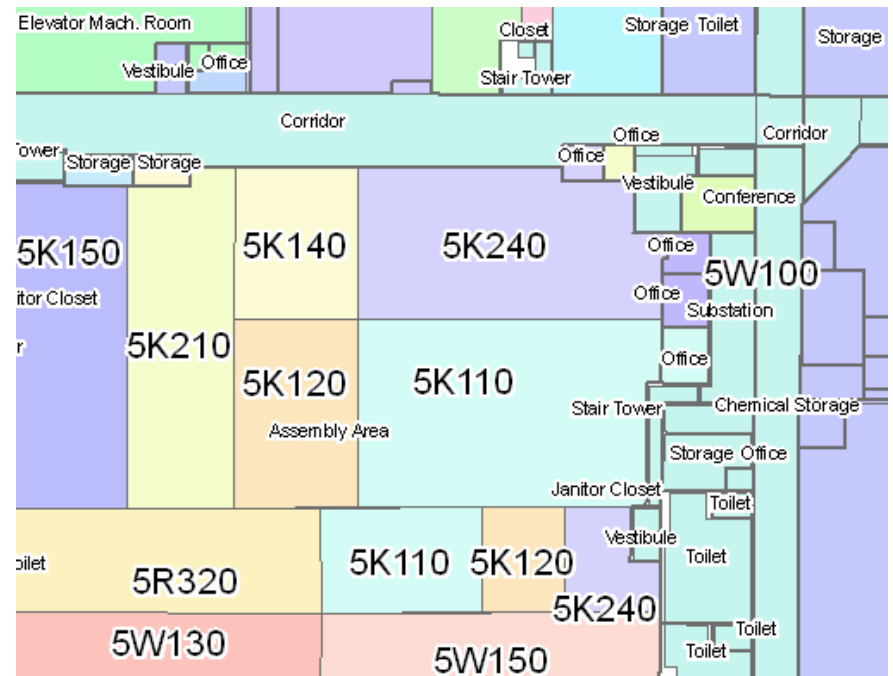
Room Data to be Collected

■ 1st iteration

- Cost center, division, and office
- Use
- CatCode

■ 2nd iteration (while correcting CAD data)

- Ceiling height
- Door swing, type, size
- Floor type.



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Room Numbering Considerations



Flow

- Clockwise/Counterclockwise
- Main “traffic patterns”
- Entrance/exits
- Door swing

Distinct floor plans require different schemas

- Wings
- Corridor shape
- Rooms.

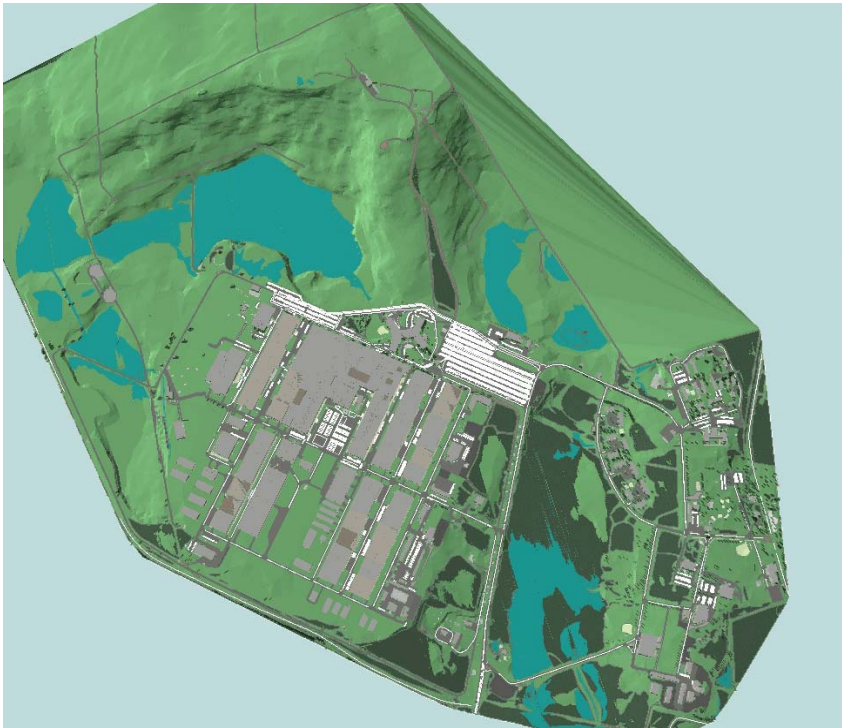
Consistency

- Between buildings on the depot
- Between floors of buildings
- Signage



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Exterior Areas to be Addressed



- Overhead and cargo doors
- Driveways
- Parking spaces
- Bus Stops
- Route numbers
- Mail stops.



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Data Integration

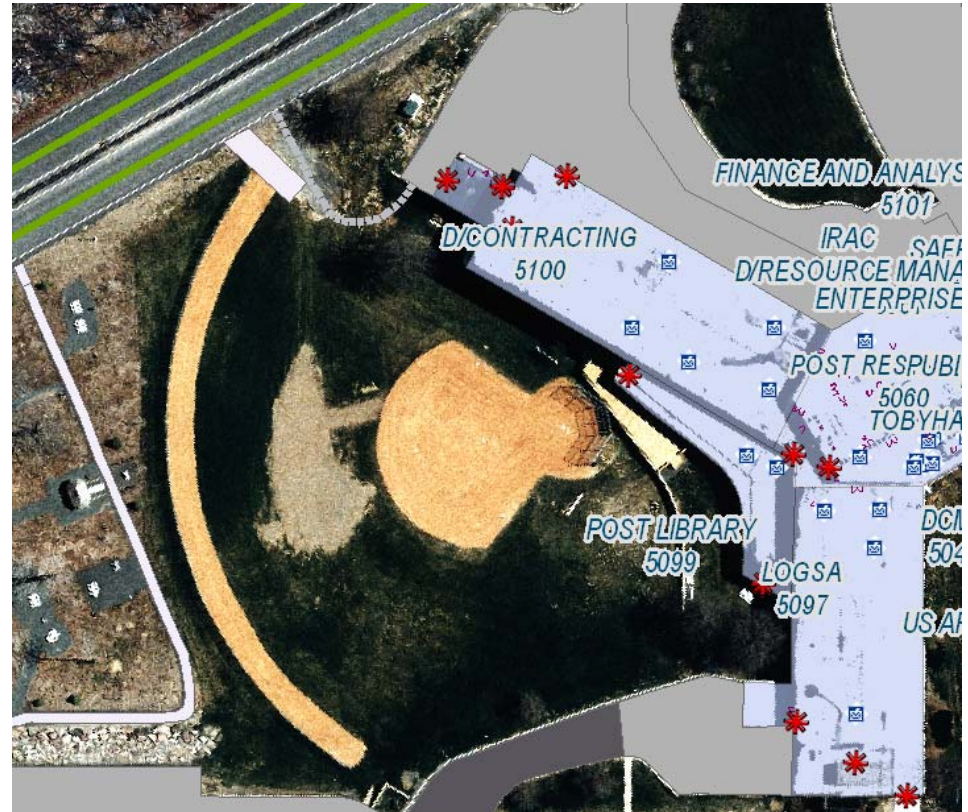
- Graphical Data sources:
 - CAD Files – Interior Layouts, Site Maps, Project Drawings/Plans/As-builts
 - Base Map From Flyover – CAD files in (originally) tiled layers
 - Environmental Coverages (asbestos project coverages)
- Non-graphical (tabular) Data sources:
 - Building Evaluation database
 - IFS (Integrated Facility System) Real Property Records
 - Asbestos testing and inspection data.



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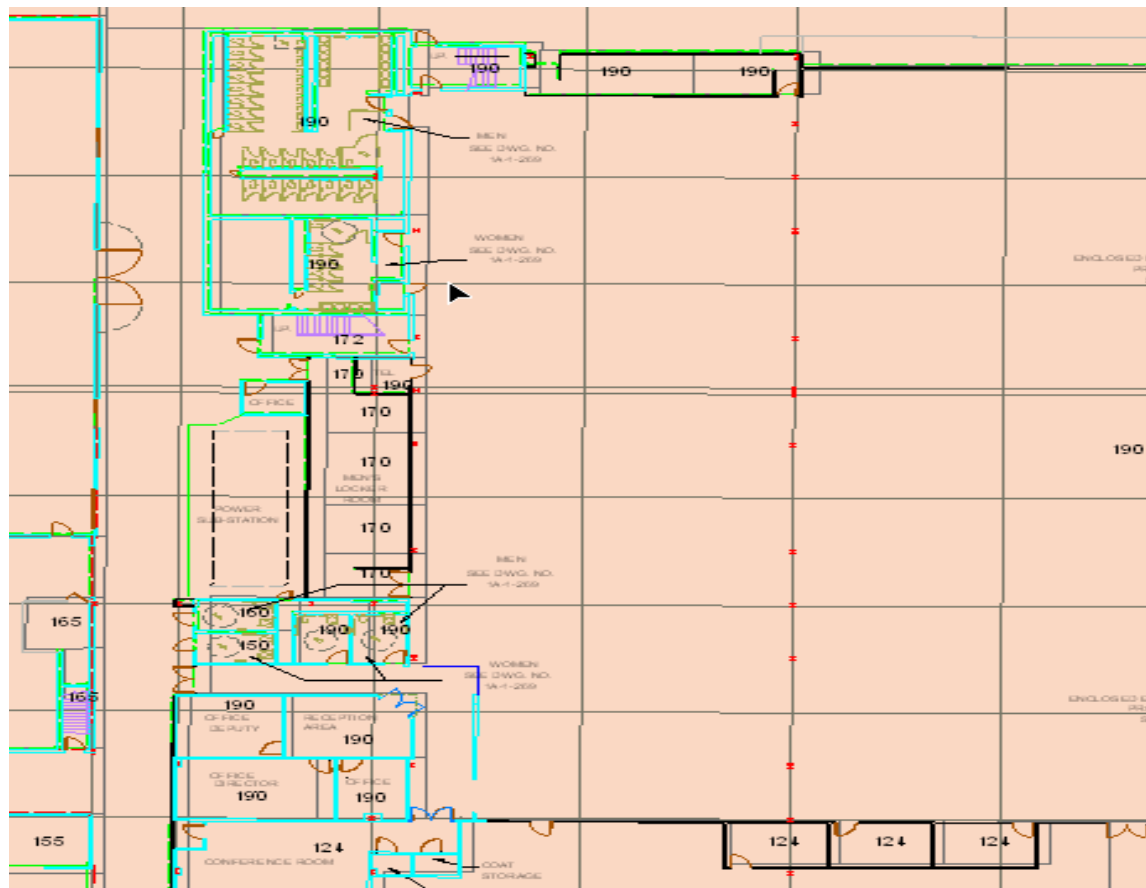
External Addressing Features

- Addressing will include:
 - Mail stops
 - Emergency exits
 - Room and suite numbers
 - Elevators and stair locations
 - Corridors and hallways
 - Fire extinguishers and sprinkler pits
 - Telephones
 - Substations and electrical rooms.



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Publicize and Standardize



- Data will utilize both GIS and CAD sources
- Updates must be provided to Department of Public Works (DPW).



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Future Use of Room Numbering and Addressing

- Standardized numbering and addressing will enable the integration of business practice functionality in IFS and job order tracking
- Safety Applications – Enhanced 911 response, phone schematic, automatic alarm triggers to interior room numbers, emergency lights mapped and tracked
- Ease of personnel location – Room numbering and cost center areas.



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Building Usability Throughout the Depot

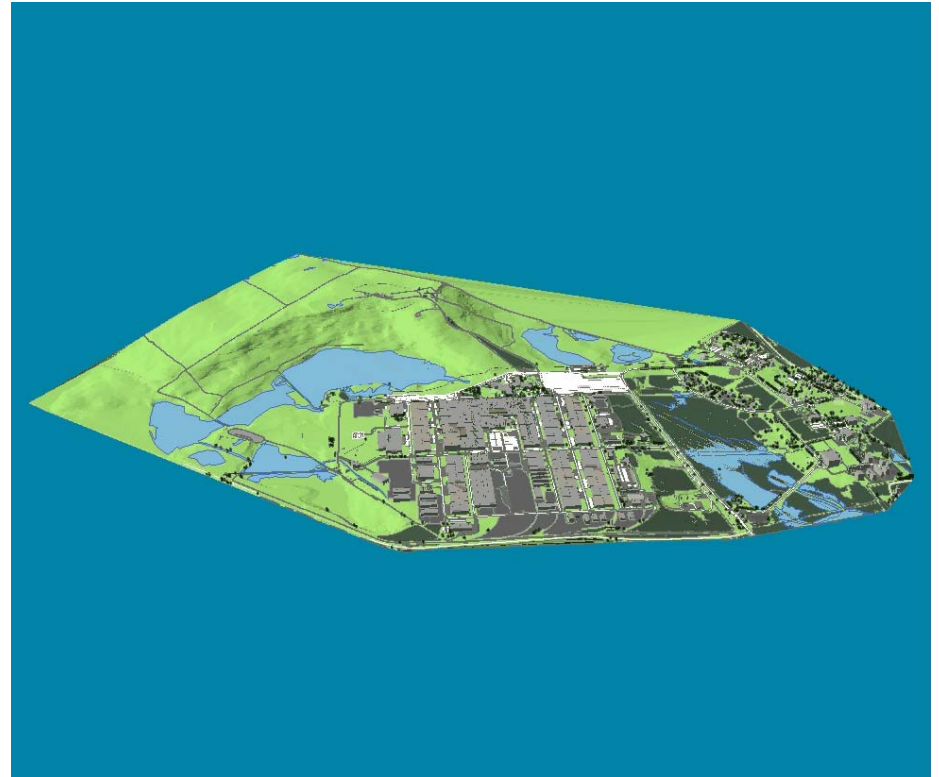
- Standard Operating Procedures
- Plant Engineering Department (PED), Environmental Management Division (EMD), and Department of Public Works (DPW) coordination
- Specialized training
- Server-side applications for business processes.



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Future of GIS at TYAD

- GIS visibility is growing
- Ease of use promoted throughout the installation
- Shared methodology and simplified Graphical User Interfaces (GUIs) for location purposes.



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Increased Use of Several Extensions

- 3D Analyst
- Spatial Analyst
- Data Interoperability
- Survey Analyst



- Development Using ArcIMS™– ArcGIS™ Server.



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